Response to the CPMI/IOSCO discussion paper
"A discussion paper on central counterparty practices to address non-default losses"[1]

Key Points

- CCPs should share best practices in non-default loss (NDL) mitigation planning and resources.
- CCPs should be responsible for NDL with a potential exception of custodian losses, and in particular situations, investment losses.
- There should be a link between NDL and CCP capital requirements.
- First line of defense needs to consist of strong mitigants. Second line of defense consists of well thought through resources and tools to cover the NDL without recourse to clearing participants.
- CCPs should be well capitalized to minimize the risk of resolution.
- Losses should not be allocated to clearing members, other than for custodian losses.
- CCPs should be responsible for all NDL other than narrowly defined exceptions, which should be clearly defined in their rulebook.
- Additional standards could be helpful to align CCPs' practices.

Introduction and executive summary

We applaud CPMI/IOSCO for the discussion paper "A discussion paper on central counterparty practices to address non-default losses", (the Discussion Paper). The Discussion Paper is a helpful stock-take of CCP practices, including identification where practices seem inconsistent with the PFMIs. We also welcome that notable practices are highlighted.

We believe that an important tool for promoting good NDL risk management is the sharing of best practices between CCPs, which could be facilitated by regulators or global standard setters. Clearing participants stand ready to support CCPs and authorities.

CCPs should be responsible for NDL, with a potential exception for custodian losses, and in particular situations, investment losses. In all other cases, losses should not be allocated to clearing members. Please refer to our 2020 whitepaper on NDL[2]. Any exceptions to this should be clearly defined in CCPs' rulebooks.

The first line of defense for NDL needs to consist of strong mitigants (policies, procedures, due diligences, and systems) to ensure the likelihood of these losses is minimized. The

[1] https://www.bis.org/cpmi/publ/d208.pdf
[2] https://www.isda.org/2020/07/31/ccp-non-default-losses/

second line of defense consists of well thought through resources and tools to cover the NDL without recourse to clearing participants.

CCPs should be well capitalized to minimize the risk of resolution. There should be a link between NDL and CCP capital requirements. The recent FSB consultation "Central Counterparty Financial Resources for Recovery and Resolution"[3] (the FSB Paper) included scenarios where some CCPs did not have sufficient capital and needed to be resolved.

We also believe that clearing participants (clearing members and clients alike) should be consulted in planning, transparency, and governance. Clearing Members also should have greater visibility into CCPs' IT controls and cyber risk best practices.

While we understand that best-in-class CCPs have good NDL risk management frameworks, the Discussion Paper makes clear that this is not the case for all CCPs. CPMI/IOSCO had undertaken a level-3 implementation monitoring in May 2018 where they had identified gaps in implementation of recovery tools to address NDLs[4]. Some of those gaps continue to exist today. Taken together with the findings in the FSB Paper, we believe this demonstrates the need for additional standards around how NDL risk should be evaluated and the type of resources that should be held against this risk.

This response covers the positions of our members on the buy-side and sell-side. The paper does not reflect the views of many CCPs, and many of the CCPs are in disagreement with the views.

[3] https://www.fsb.org/wp-content/uploads/P090322.pdf , FIA/IIF/ISDA response at https://www.isda.org/2022/04/28/isda-iif-and-fia-respond-to-fsb-consultation-on-ccp-resources-in-recovery-and-resolution/

[4] https://www.iosco.org/library/pubdocs/pdf/IOSCOPD601.pdf

General Comments

Responses to questions

<u>Overarching questions</u>

1. Are there areas in the context of CCP NDLs where further guidance under the PFMI might be helpful? If so, what are the potential areas where further guidance might be most helpful?

Further standards would be helpful with respect to the approach CCPs should use to quantify the amount of own funds that should be held to cover for different NDL scenarios, to ensure adequacy of resources and achieve harmonization and consistency across CCPs. Without guidance as to the severity of scenarios to consider, it will be difficult to achieve a level playing field between CCPs.

Areas like transparency, cyber-theft and climate risk also need to be considered and further guidance would be highly valuable.

2. Are there any additional points of consideration or practices, in addition to those mentioned in this discussion paper or in the PFMI and existing guidance, that would help CCPs effectively and comprehensively address losses from non-default events? Are there areas that require additional clarity from authorities? If so, what are they?

This discussion paper is a first step towards developing a set of best practices. These best practices can either come from the clearing industry or from the broader financial services sector. CCPs together, potentially supported by CPMI/IOSCO and clearing participants, should continue to identify and to establish the basic principles to be adopted in their NDLs framework.

3. Are there particular challenges that CCPs face in planning for an orderly wind-down in a NDL scenario? Are there means to motivate further progress in orderly wind-down planning?

We agree that wind-down plans are important, as a CCP should be able to have sufficient capitalization to wind down its business without recourse to resolution resources as a primary objective. CCPs should also provide help to clearing participants moving their risk elsewhere if a CCP winds down.

Making progress on orderly wind-down planning is therefore a critical component of ensuring a comprehensive plan for CCP resilience overall.

We are unable to comment in detail on the challenges that CCPs might experience as wind-down plans (beyond tear-up of trades referenced in CCP rules) are not transparent to market participants.

4. Would a similar review of practices in the context of NDLs for FMIs other than CCPs be helpful? Would further guidance under the PFMI be helpful in this context?

This would be very helpful, especially for custodians (including International Central Securities Depositories) as they have large risk exposures and the collateral kept is a crucial and large source of CCPs resources.

Overall, CCPs are interconnected and interlinked with several other types of FMIs, like custodians, settlement banks, settlement systems and payment systems. The stability and safety of these entities is crucial to the safety of CCPs and they should therefore follow the best practices in general and on NDL management in particular. Leveraging practices from all those entities, evaluating agreements and assessing scenarios when losses can flow through to CCPs can be critical in estimating potential losses. Broader crisis exercises and sharing of best practices are required to build a robust system.

Identifying NDL scenarios, quantifying NDLs and assessing the sufficiency of resources (Section 2)

5. How can a CCP identify potential NDL scenarios comprehensively as well as with an appropriate degree of granularity?

We believe that best-in-class CCPs have robust NDL scenarios in place.

A potential way forward could be a detailed repository of NDL scenarios, based on the scenarios best-in-class CCPs currently plan for, enhanced with expert judgement and inputs from regulators and clearing participants. We would like to point to the work undertaken by ESMA on Recovery and Resolution, specifically on the Guidelines on the summary of the resolution plans[5]. The template includes a subset of NDLs scenarios which could be considered as baseline scenarios in establishing an NDLs repository.

We also note that CCPs should maintain policies and procedures that outline measures they take to minimize potential NDLs and impact.

6. Given that a CCP's efforts to prevent losses from non-default events may fail, what are effective approaches to prepare for and address resulting losses, in particular from low-probability, high impact events?

We acknowledge the lack of relevant historical data points and therefore designing an appropriate framework will most likely come from expert judgment based on detailed understanding of operational risk, CCP business risk, investment and counterparty risk, custody risk, legal risk, cyber risk and so on. Just as new products do not have historical stress scenarios and rely on theoretical and hypothetical scenarios based on similar

[5] Consultation on Guidelines Template Summary Resolution Plans Article 12(7)(a) (europa.eu)

products, we suggest that CCPs develop theoretical and hypothetical stresses based on the knowledge of their own processes, and experiences of other CCPs, FMIs and financial institutions.

Any approach to forecast losses on a very limited set of actual data requires proper consideration to ensure the losses remain “extreme but plausible”. While the onus should be on the CCP to justify the reasonability of the scenarios it uses, regulatory guidance would also be helpful to provide guardrails (for instance in terms of severity of shocks) to CCPs when they plan resources and tools for NDL.

As the owner of a risk management framework might be naturally biased, it would be beneficial if the adequacy of potential scenarios is complemented and validated by external parties such as clearing participants (during due diligence exercises) based on their own experiences and by supervisors/regulators.

7. Are approaches such as sensitivity analysis, scenario simulations, drills, or stress-testing analysis useful for quantifying resource needs and assessing adequate NDL coverage? If so, what are potential obstacles hampering progress in this area and what could be possible avenues for reducing those obstacles?

We are not aware of any other approaches and refer to our response to Question 6, where we propose to rely on expert judgment based on a detailed understanding of operational processes, setup of the CCP, investment counterparties, custodians etc., complemented by external parties’ input.

Establishing common baseline scenarios across CCPs with a set of common risk factors and a set of specific CCP risk factors should provide comparative results for authorities to assess the appropriateness of the NDL coverage between CCPs (see Question 5 and 11).

8. Are there particular types of NDL scenario that CCPs could consider to help assess potential resource needs and coverage for NDLs? (eg stressed business and operational risk scenarios extrapolated from past events, NDL scenarios exacerbated by wider macroeconomic stress, or other hypothetical NDL scenarios)?

Whilst there could be numerous NDL scenarios that could and should be constructed, we believe that all CCPs should include, as a minimum coverage, the following events:

- Investment losses unrelated to member defaults (including failures of repo counterparties and defaults or downgrades in credit ratings of sovereigns) – the scenarios should consider the investment strategy of the CCP and the potential sizes of exposures using their own historical data.
- Losses arising from failures of securities custodians or settlement banks unrelated to a member’s default – historical data should be used as a guide for potential exposures, and scenarios should consider both a wider market stress and an

unexpected failure due to an idiosyncratic event. There should also be a close review of the agreements with custodians to determine situations where losses can materialize. For instance, would losses arise only in the context of a default of the custodian or are there other scenarios where custodians would pass through losses to the CCP? Given the CCPs negotiate agreements with custodians, they should bear responsibility for any loss that results from agreements not being robust.

- Losses caused by fraud, theft, or other bad acts of employees and/or third parties – CCPs should consider access rights and permissions given to employees and third-parties whilst estimating the magnitude of potential harms.
- Losses from outsourcing: Given that CCPs may have several outsourcing agreements, for instance with cloud service providers, it should be clear that they bear sole responsibility for these arrangements since CCPs negotiate them.
- Losses resulting from cyber-attacks – CCPs should consider vulnerabilities, and the time required to execute remediation plans and potential for stolen assets in estimating loss magnitudes and should also include any mitigants such as insurance policies.
- Losses from operational or systems failure – again, CCPs should consider vulnerabilities, failover options (including backup sites in alternative geographic locations), IT release testing procedures, etc., in assessing potential harm and should use data from prior all operational/system related failures in making this assessment.
- Losses from legal claims against actions by CCP management while managing the CCP. Recent experiences suggest these can add up quickly and it is therefore important to ensure such losses are addressed in liquidity and capital plans.
- General business losses, or business failures like failed acquisitions.

Please see also Question 5.

9. How and to what extent can the potential simultaneous occurrence of default and non-default related events be taken into account?

An analysis of the additional roles clearing members play at the CCP is required (e.g., repo counterparty, investment agent, settlement bank etc.) to identify the types of events that could directly result in default and non-default events.

For each NDL, CCPs should determine whether there could be a change of severity or likelihood should either another NDL or a default event happen at the same time. For example, an NDL scenario relating to an internal system failure may become more likely if there was a simultaneous default event owing to higher market volumes and volatility.

Finally, it is worth noting that CCPs that are subject to the EU CCP Recovery and Resolution Regulation (CCPRRR) must already consider simultaneous default and non-default events.

There should be clear guidelines for separating losses due to a default event and a non-default event, to ensure that clearing participants are not assessed for the NDL. Some NDL events will exacerbate default losses such as technical issues delaying the ability to liquidate a defaulter's portfolio. There should be provisions for the CCP to use more of its own funds to compensate for the NDL impact on default events.

10. What factors, in addition to those suggested in the PFMI, might a CCP helpfully consider when calculating the amount of liquid net assets funded by equity that is sufficient to implement its recovery and orderly wind-down plans? How can a CCP effectively incorporate its general business risk profile and the length of time required to achieve recovery or orderly wind-down into this analysis?

The current approach driven by the PFMIs is that CCPs determine the amount of liquid assets funded by equity, based on their NDL planning and scenario analysis. This causes moral hazard, as CCPs will not be incentivized to identify and support with funds a wide range of potential NDL.

As the only minimum requirement is to keep six months of operating expenses, which are meant to address a wind-down, not NDL, the current approach is akin to a bank that does not have any pillar 1 capital requirements but solely relies on pillar 2. CCPs' capital requirements appear less regulated and less heavily supervised than banks'.

We believe that the minimum capital requirements for a CCP should be better defined, considering all potential sources of risk. This could also support CCPs by providing guardrails for the severity of scenarios they need to plan for.

An approach similar to that used in IFR for the K factor computation could be an appropriate framework to compute the potential quantum of risk and capital. For example, the framework could use average balances over a given time horizon at custodians, maximum margin balances at repo counterparties, or average daily flows to estimate potential amounts at risk for fraud, but also include six months of operating expenses as one element.

Another approach would be to adapt the Basel rules for operational risk, despite these rules having been built for large, diversified entities with more granular exposures than those of CCPs.

For clarification, we do not propose to apply either IFR or Basel rules, but to adapt and calibrate these to determine CCPs' capital requirements.

11. Given the limited availability of historical data on severe NDL events, what do you consider the most important sources of information in developing plans to address NDLs, particularly for potential recovery situations (eg internal expertise, key stakeholders such as clearing participants and service providers, external market experts, relevant authorities, frameworks and practices in place for other types of financial institution)?

Whilst markets, products, and governance models may be unique to a CCP, there is a large degree of overlap across the risks relevant for NDLs. Having relevant authorities compare the risk registers across different institutions is an important step in ensuring risk factor coverage consistency. In terms of plans to address and manage NDLs, leveraging on internal expertise of systems and markets is an invaluable source of information, which could be an input from any relevant parties.

We would like to point to the latest ESMA Stress Test report[6] which included for the first time an assessment of operational risk. This extensive analysis indicates a certain level of common risk factors across CCPs, such that some exposures could be translated into potential losses. Still, some more analysis is required, but this report could provide some interesting input.

CCPs could take a common set of scenarios and make a reasonable best estimate of the NDL impact of each scenario on themselves, based on their detailed knowledge about operational processes, risk, products, markets, participants etc. Internal stakeholders should produce a narrative on how they would manage each scenario.

Other than available data that could be shared anonymously, it is difficult to see data sources other than expert judgements (experts being not only CCP staff, but also supervisors and clearing participants).

12. Do you have any suggestions for how the clearing industry could leverage loss data from other industries or collaborate to share anonymised loss data?

Given that NDLs are so infrequent, and that the quantum of loss is specific to systems and internal processes, it is difficult to justify systematically finding approaches to share loss data.

However, it would be beneficial to provide anonymized post-mortem information that would be relevant in refining CCPs' NDL framework and approach, especially if the NDL was substantial in monetary terms, and caused by a risk factor not covered by the CCP's own resources.

In any case, expert judgement is required to adapt the loss data to a CCP setting, and the most valuable collaboration would be to share best practices with respect to scenario construction and loss computation.

[6] ESMA stress test of Central Counterparties finds clearing system resilient (europa.eu)

In line with our response to question 11, a common set of NDL scenarios could be given to CCPs with internal expert stakeholders making a best-guess effort on loss exposure.

13. What key measures can help to ensure that capital replenishment could be achieved in a timely and effective manner? Does the clear definition and testing of processes to obtain backup funding from affiliates or external sources underpin the credibility of that funding? How do you assess the current availability of committed or legally binding funding arrangements?

We agree with the discussion paper that the likelihood of funding being forthcoming quickly increases if there are clear pre-arranged processes, and funding should ideally be committed.

If a CCP is part of a group, there is no reason not to arrange committed funding arrangements with the parent. Where affiliates and group companies benefit from the revenue stream from clearing services, it is reasonable to expect them to provide committed funding and capital replenishment arrangements in a timely and effective manner.

Finally, funding arrangements become less important the more the CCP's capital is right sized for real expected costs and not only towards regulatory minimums.

CPMI/IOSCO could also consider the use of pre-positioned resolution resources ("TLAC type" resources) for NDL. We understand that the FSB is considering such types of resources, which could be helpful for NDL too.

14. What role should insurance play for NDL, considering potential uncertainties about coverage, pay-out delays and performance risk? Are there certain types of NDL risk for which insurance may be a more appropriate loss-absorbing resource than for other types of NDL risk?

We believe insurance can be an important tool and resource for NDLs[7]. A key advantage is that insurance cover will not draw on funds in the clearing ecosystem. Also, insurance internalizes the cost of low probability NDLs. The due diligence that will likely be performed by the insurance provider could also be an important improvement in NDL risk mitigation.

Insurance can play a relevant role to mitigate certain types of risk, such as cyber-attacks or internal fraud where it is easier to demonstrate that an external event has taken place. Insurance also works well for slowly-evolving NDLs, like legal risk, as opposed to custodian or investment loss where a quick turnaround and access to assets is required, unless the CCP has sufficient measures in place to cover the liquidity gap.

[7] While not in scope, we also believe that an analysis is warranted whether and how the default waterfall could be improved with the use of insurance.

We also note that insurance could be a good tool to avoid solvency issues for the CCP (i.e., to cover losses), even if the CCP needs to establish liquidity measures to bridge a potential gap between the loss event and the time when the insurance would pay out.

The level of insurance coverage can also be calibrated to the magnitude of risk, as discussed in Q10 and Q11.

15. What practices might improve CCPs' planning for an orderly wind-down necessitated by NDLs?

Detailed planning of how a segment can be wound down is key. These plans should be developed in conjunction with clearing participants and third-parties and be made transparent to them, as these will have a key role to play by migrating their transactions elsewhere.

CCPs could share examples of, and learn lessons from, how existing CDS segments have been wound down (CME CDS, ICE EU CDS, SGX IRS). Dialogue with participants, and understanding of operational processes and challenges in migrating positions would help. Crisis exercises (similar to fire drills) can help unearth potential challenges that can be ironed out during BAU conditions.

CCPs should carefully consider any reputational impact of NDLs and how this may consequently impact their wind down plan.

Achieving operational effectiveness (Section 3)

16. Are there any additional notable practices that could promote the operational effectiveness of plans to address NDLs?

In line with our responses elsewhere, we believe that plans to address NDL will be particularly effective if they have been developed (where possible) with clearing participants, supervisors and authorities.

The presentation of plans, including hypothetical examples, scenarios under which they may arise and processes that CCPs would follow, to clearing participants and supervisors would help ensuring all parties are aware and prepared, and additionally could provide greater certainty with regards to the legal basis and enforceability of the tools and plans.

17. What approaches might be helpful to ensure that relevant third parties (such as service and liquidity providers) fully understand and are prepared for their potential role in addressing NDLs?

In our response to question 16, we propose that plans to address NDL will be particularly effective if they have been developed (where possible) with clearing participants, supervisors, and authorities and that the plans are known to them. We believe the same is true for relevant third parties, especially when those plans include operational processes that would have to be implemented.

18. What are the essential elements of appropriate due diligence vis-à-vis relevant third parties on which CCPs would expect to rely in an NDL event?

Global best-in-class CCPs already provide comprehensive due diligence on their clearing members and relevant third parties. This (we believe) does include third parties that would have a role in mitigating and reacting to NDL events.

In all cases, it is important that the due diligence includes the legal basis of plans, especially when third parties are in different jurisdictions, and also consideration with regards to the potential financial impact of a CCP's plans on third parties (and vice versa where plans of CSDs or settlement banks and the agreements with them could impact the CCP if losses are passed through to the CCP) and whether this could lead to cascading defaults of these counterparties.

19. What are the key factors and constraints that impact the choice and order of different tools for the various types of NDL scenario?

As per the prior questions, understanding the legal basis and potential financial impact for the potential loss scenarios at a given CCP would then determine what tools could be applied and in which order.

20. What technological tools should be developed to promote the operational effectiveness of plans to address NDLs?

We believe that there are a lot of technological tools that could help mitigation, like back-up facilities, automated portability, information sharing systems. We however understand that mitigation of NDL is out of scope of the Discussion Paper.

As many NDL occur when existing processes and IT systems do not perform as expected, to address the majority of NDL, the use of IT systems will be limited.

One exception is IT security and defense against hackers, which relies heavily on IT systems.

The other exception is loss allocation, but even in this case the quantum of losses and maybe even the affected group of clearing participants might be different depending on the details of the loss, which makes integration in IT system difficult.

Reviewing and testing plans for NDLs (Section 4)

21. Are there additional notable practices for reviewing and testing plans to address NDLs?

As discussed in prior questions, clear and effective communication of the plans is critical. One relevant point raised in the discussion paper is the role of risk committees, which provide an excellent forum for discussion and challenge, but do not act as an appropriate communication channel for other parties given the confidentiality obligations that exist on members.

22. What challenges are there to achieving the goal of increasing the involvement of additional stakeholders in different stages of review and testing of plans to address NDLs?

Clearing participants, many of which also have other roles as third parties (liquidity providers, investment counterparties) stand ready to be involved in testing NDL plans.

As mentioned, one challenge could be confidentiality: these tests would have to anonymize any data where confidential information from clearing participants, third parties or the CCP could be reverse-engineered.

Another challenge would be the testing of plans to address NDL if IT security is affected, as many CCPs do not share information about their defenses. Therefore, Clearing Members should have greater visibility into CCPs IT controls and cyber risk best practices, and how testing is performed.

23. Are multi-CCP crisis management drills an effective tool for testing preparedness to address NDLs? Are there any barriers to effectively conducting this type of exercise? What role should authorities play in supporting these exercises?

Clearing participants are generally very supportive of multi-CCP fire drills.

Multi-CCP drills have been very effective at testing preparedness of counterparty and member defaults because they have been used to test against a specific scenario where the approaches to risk management across CCP is relatively homogeneous.

In relation to NDL, there are a few scenarios that can affect multiple CCPs at the same time, for instance operational issues or defaults at a custodian or payment system. Other NDL are CCP-specific, with different approaches to capital replenishment, resulting in limited value of a joint drill, other than providing learning opportunities for CCPs that are less well-developed in this regard. Some types of NDLs (custodian losses, investment losses and settlement bank losses) however warrant multi-CCP drills, whereas risks like operational risk, legal risk and business risk are better addressed within each CCP.

Confidentiality can be a potential concern. However, if member default drills can be conducted in a joint manner, we are confident that obstacles can be overcome to enable NDL fire drills.

We note that regulators initially required multi-CCP drills but in recent times, some CCPs do this voluntarily. A similar approach of mandating/ requiring joint drills, at least initially, may be helpful for NDLs, if only to kick-start and support the organization of such drills.

Providing effective governance, transparency and engagement with participants and authorities (Section 5)

24. Are there additional notable practices for providing effective governance, transparency and engagement with participants and authorities in the context of NDLs?

We have proposed in the other questions that effective plans are best developed and tested together with clearing participants and relevant third parties. This should also extend to governance.

Plans to address NDL should be known to clearing participants and third parties. This does not mean the plans have to be public. Clearing participants and third parties have no issues to sign non-disclosure arrangements to manage confidentiality issues.

On transparency, both qualitative as well as quantitative, we believe that providing disclosures on what each NDL could potentially result in, demonstrating what resources are available would provide comfort on their sufficiency. Public quantitative disclosures currently contain no disclosures related to NDLs other than six months' operating expenses.

25. What are the most important elements of appropriate processes and governance arrangements for rule-based loss allocation to support clearing members in anticipating and preparing for potential exposures?

To incentivize prudent risk management at CCPs and to prevent moral hazard, NDL relating to risks that are exclusively within the CCP's control should be borne by the CCP. It is expected that the majority, if not all, of NDL will fall into this category, with the possible exception of custodial losses and those cases where clearing members take active decisions as to the investment of their cash IM. These exceptions should be clearly identified in CCPs' rulebooks.

For these events, it is key that scenarios are realistic and consistent, potentially using approaches highlighted in question 10, are clearly presented to clearing members with loss magnitudes based on historical data/projections, and identify the amount of capital replenishment from rules-based loss allocation.

Where an actual NDL event that may involve rules-based loss allocation as an exceptional tool has occurred, it is imperative that CCPs provide timely updates to members, including potential loss allocation amounts, in advance of the final amount being known, to allow clearing members to prepare. Therefore, effective communication during the NDL event (or any crisis) should also be carefully considered.

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